

**COMMUNICATIONS SYSTEM, APPARATUS AND METHOD THEREFOR**

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Abstract of the Disclosure

In IPv6, a multi-homed domain comprises more than one connection to domains disposed hierarchically above the multi-homed domain. Consequently, more than one set of IP addresses exists corresponding to the more than one connection between the multi-homed domain and the hierarchically higher domains, respectively. At present, a first host associated with the multi-homed domain must choose between one of the more than one set of IP addresses in ignorance of the existence of a fault condition arising in connection with one of the sets of IP addresses, resulting in the first host becoming unreachable by a second host located elsewhere in the Internet. The present invention therefore provides a system, method and apparatus whereby a given domain transmits an address prefix to domains disposed hierarchically below the given domain and forward address prefixes received from domains disposed hierarchically above the given domain to domains disposed hierarchically below the given domain.

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**(Figure 2)**

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